REMARKS

Applicants acknowledge withdrawal of the non-statutory double patenting rejection and consideration of the Information Disclosure Statement.

Claims 3-5 and 17-24 are in the instant application. No claims are allowed or indicated as allowable.

Claims 3-5 and 17-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hagele, United States Patent No. 6,129,248 (hereinafter also referred to as "Hagele"). Applicants respectfully traverse the rejection of claims 3-5 and 17-24 as being unpatentable over Hagele; however, to eliminate and/or reduce the issues, claim 21 is cancelled, without prejudice, and claims 17, 19 and 21 are amended to more positively recite Applicants' patentably novel eye drop container in varying scope.

Support for the amendments to claims 17, 19 and 21 is found, among other places, in the pending claims and in the drawings. Based on the foregoing, Applicants respectfully request admittance of the amendments to claims 17, 19 and 21, and reconsideration of claims 3-5, 17-20 and 22-24.

The Office Action alleges that Hagele discloses an eye drop container having most of the features recited in pre-amended claim 17, and states that Hagele is silent as to the hollow body portion and the dispensing body portion being integrally and unitarily formed as one piece. The Office Action concludes the rejection of pre-amended claim 17 by alleging that Hagele discloses that the hollow body portion (deformable dropper bottle) and the dispensing body portion (tip 210) are preferably made from resilient thermoplastic material, which is compatible with injection molding and techniques (see column 4, lines 53-55), and that therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the hollow body portion and the dispensing body portion integrally and unitarily formed as one piece, for easier and cheaper manufacturing.

Applicants respectfully submit (1) that Hagele does not disclose the features of the first hollow body segment recited in amended claim 17, (2)that one of ordinary skill in the art would not make the hollow body portion and the dispensing body portion of Hagele integrally and unitarily formed as one piece, for easier and cheaper manufacturing the hollow body portion and the dispensing body portion integrally and unitarily formed as one piece, and (3) that even if one skilled in the art were to form the dropper of Hagele as a one piece container, it would not have the features of Applicants' eye dropper recited in amended claim 17.

More particularly, amended claim 17 recites an eye drop container having, among other things:

> a flexible hollow body portion having a closed end for containing a liquid therein; and
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> a dispensing body portion having a tip end spaced from the closed end of the hollow body portion, with the liquid free to move within the container between the flexible hollow body portion and the dispensing body portion, the dispensing body portion, comprising:
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> a first hollow body segment having an external circular surface and an opposite internal circular surface, with the external circular surface having decreasing diameter as the distance from the tip end decreases to have the smallest diameter at the tip end, and the internal circular surface having decreasing diameter as the distance from the tip end decreases; and
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> a second body segment extending from the tip end into the first segment, the second segment having an outside circular surface and an opposite internal surface, with the internal surfaces of the first and second segments facing one another, spaced from one another, and the external surface of the second segment having increasing diameter as the distance from the tip end decreases, with the second segment at a predetermined distance from the tip end terminating in a small-diameter instilling hole,
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> wherein said hollow body portion and the dispensing body portion are integrally and unitarily formed as one piece to form a blow-mold product or a vacuum-mold product, and

wherein applying a predetermined pressure to the body portion moves a predetermined amount of the fluid in the container through the instilling hole.

The eye drop container recited in amended claim 17 is directed to a mold product formed by blow molding or the like in which the dispensing portion is integrally and unitarily formed with the container body portion, and the first hollow body segment has the smallest diameter at the tip end. Particularly, it should be noted that the shape of the tip end portion of the container according to the present invention is completely different from that of Hagele providing the perimeter ring 240 or 40 (Figs. 1 to 6), the perimeter edge 140 (Fig. 7) and the annular plate 375.

Both the present invention and Hagele provide the opening formed in the tip end for Applicants' container, in the perimeter ring for Hagele's dropper; the instilling hole formed in the interior of the container, and a conical portion formed between the opening and the instilling hole. However, as we stated above, the eye drop container of the present invention is integrally and unitarily formed as one piece to form a blow-mold product or a vacuum-mold product. In contrast, the dropper of Hagele is formed by injection molding (column 4, line 55). Although Applicants' container and Hagele's dropper both perform the same function, those products are completely distinguished in terms of technical significance.

For an appreciation of the technical differences between forming the dispensing body portion integrally with the container by blow molding or the like, and forming the dispensing body portion by injection molding, the following is presented.

According to the injection molding techniques, resin is injected between outer and inner molds to form a product. This allows the thickness and the shape of each part of the product to be freely formed (as a perimeter ring, perimeter edge, annular plate or the like) once the outer and inner molds are designed. Since it is required for eye drop containers to have a function to exactly control the liquid quantity to be dropped, almost all the eye dropper containers have had the dispensing body portion formed by injection molding until the present invention was made. Such a dispensing body portion obtained by injection molding is not formed integrally with a container body, but attached to the container body

formed separately from the dispensing body portion to complete the entire eye dropper container.

On the other hand, the present invention provides the container formed by blow molding or the like including the tip end having the dispensing body portion integrally formed therewith. The distinctive aspect of the present invention lies in that the dispensing body portion which had conventionally been obtainable only by injection molding is formed integrally with the tip end portion of the blow-mold product.

To be more specific, in the blow molding techniques, resin is expanded and pressed on the outer mold, and thus each part of the mold product has a reduced thickness. It is not possible to form the instilling hole at the same time by blow molding because it is required to put unexpanded parison inside the mold in blow molding and thus the mold should have a divided construction. In the case of the eye dropper container, the mold is vertically divided into two parts (right and left) as shown in Fig. 2 of the present application. Where the mold is designed in such a manner, it is impossible to further provide mold parts for forming the inner recess of the second body segment in the divided two mold parts because the mold parts in the recess cannot be removed when the right and left mold parts are opened after the blow molding process is executed.

Even if the mold is divided into three parts to provide a third mold part for forming the inner surface of the recess of the second body segment, the instilling hole is not successfully formed. In blow molding, the outer mold is used while any inner mold is not used. This leads to variations in thickness of resin of the blow-mold products. In particular, since the dispensing body portion is a relatively sharp-pointed portion in the overall container, resin easily accumulates in this portion in blow molding. When the instilling hole is formed in this portion later, the length of the hole may not be constant because the thickness of resin varies with the products. Also, it should be noted that resin has some resilience. Thus, even when the instilling holes' having the same inner diameter are formed, the quantity of return of the resin is varied to change the shape of the hole due to the variations of the resin thickness, as a result of which a constant performance of instilling the liquid is not achieved.

In the light of the disadvantages noted above, in order to form the recess such as the second body segment of the present invention, the container once formed by blow molding undergoes press molding in the secondary process. However, such pressing process executed after the' blow-mold product is formed is not easily performed.

Conventionally, it has been a negative position in the field of this art that the secondary process such as press molding is applied to the blow-mold product. More particularly, it is required to add a great deforming force enough to extend the resin in order to form the recess having a depth suitable for controlling the quantity of the liquid to be dropped in the tip end portion defining an extremely small portion of the blow-mold product by the pressing process. The tip end portion has a thickness to allow the resin to easily accumulate therein to some extent, and yet is relatively thin in view of the overall construction. This may enhance the risk of breaking the tip end in the pressing process. Even if the pressing process is successfully executed, the risk remains that the shape once formed may not be maintained due to return of the resin based on the resilience.

As noted above, any concept has been developed in the related field of industry that the dispensing body portion of the container formed by blow molding can be shaped into the recess suitable for controlling the quantity of the liquid to be dropped.

Therefore, it is not obvious or conceivable to the skilled person to provide the blow-mold product with the configuration having the function to control the quantity of the liquid to be dropped which is comparable to the injection-mold product. The present invention has a technical significance in forming the dispensing body portion capable of achieving the same function as the dispensing body portion formed by injection molding to be integral with the container formed by blow molding or the like.

In the currently amended claim17, the container according to the present invention is formed as one piece to complete a blow-mold product or the like. As noted above, unlike the present invention, any conventional eye drop containers are not formed by blow molding and do not have a tip end with a similar configuration defined in the current

claims. It is generally quite easy to distinguish a blow-mold product from an injection-mold product. Therefore, the limitation of the container as a blow-mold product or a vacuum-mold product in the claims does not specify a manufacturing method, but defines the elements of the product.

Although the drawings clearly show and describe the invention as claimed, Applicants are providing Photographs 1 and 2. Photograph 1 shows the shape of the dispensing body portion of the eye drop container of the present invention and Photograph 2 shows a portion of the dispensing body removed.

In addition to the patentable differences presented above, Applicants bring attention to the differences between the dispensing body portion recited in amended claim 17 and the dispensing portion of the dropper of Hagele. The dispensing portion of amended claim 17 includes, among other things, an external circular surface having decreasing diameter as the distance form the tip end decreases to have the smallest diameter at the tip end. The dispensing portion of Hagele, on the other hand, does not have the smallest diameter at the tip end. The tip 10 of Hagele includes a perimeter ring 40 and a notch 50 (see Fig. 3 and column 5, line 60 to column 6, line 7). The tip end of the tip 10 of Hagele is the perimeter ring 40 which has a larger external diameter than the notch 50.

Based on the forgoing, Applicants respectfully submit that the present invention as recited in the claims is now clearly distinctive over the prior art.

The Office Action alleges that the product-by-process limitation in claim 23 results in no structure that is different from Hagele '248 and that the product by process claims are not limited to the manipulations of the recited steps, only to the structure implied by the steps.

Claim 23 recites that the tip end of the external surface has a bowl-shaped curved surface that is free of burrs. Applicants respectfully submit that there are no process steps recited in claim 23. Further there is no disclosure in Hagele that the tip is free of burrs.

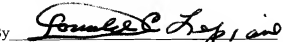
Applicants bring attention to claims 18 and 20. Claims 18 and 20 include, among other things, the features of the cap. More particularly, claim 19, dependent on claim 17, recites that that the cap B (see Fig. 1) includes, among other things, an internal nib shaped to engage selected portions of the external walls (6b) of the second body segment when the cap is securely mounted on the hollow body section (as shown in Fig. 1). Claim 20, dependent on claim 17 through claim 19 also recites, among other things, that the inner surface of the cap has a nib. The cap of Hagele has a flat inner surface (see Fig. 3 of Hagele) and does not have a nib as recited in Applicants' claims.

Based on the forgoing, Applicants respectfully request withdrawal of the rejection of claims 3-5, 17-20 and 22-24 under 35 U.S.C. § 103(a) as being unpatentable over Hagele and request allowance of claims 3-5, 17-20 and 22-24.

This Amendment represents a sincere effort to place this case in condition for allowance. In the event issues remain, the Examiner is invited to call the undersigned before further action is taken on the case.

Respectfully submitted,

THE WEBB LAW FIRM

By 

Donald C. Lepiane
Registration No. 25,996
Attorney for Applicants
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219
Telephone: (412) 471-8815
Facsimile: (412) 471-4094
E-mail: webblaw@webblaw.com